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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Applicant: Barry Richard Cavill et al. : Paper No.:

Serial No.: 09/610,404 : Group Art Unit: 2624

Filed: July 5, 2000 : Examiner: K. Poon

For: **Apparatus and Methods for Data Management Within a Photoprinter**

## TRANSMITTAL OF APPEAL BRIEF

Commissioner of Patents
Washington, DC 20231

Dear Sir:

Submitted herewith in **triplicate** is an Appeal Brief in response to the Notification of

Non-Compliance dated February 25, 2003. The government fee in the amount of $320.00 for

filing the present Appeal Brief was enclosed by check with the original Appeal Brief filed by

Certificate of Mailing on November 27, 2002.

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Respectfully submitted,
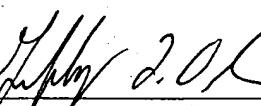
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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Applicant:	Barry Richard Cavill et al	:	Paper No.:
Serial No.:	09/610,404	:	Group Art Unit: 2624
Filed:	July 5, 2000	:	Examiner: King Y. Poon
For:	**Apparatus and Methods for Data Management Within a Photoprinter**		

APPEAL BRIEF

Commissioner for Patents
Washington, DC 20231

Dear Sir:

The present Appeal Brief is submitted in support of the Notice of Appeal filed by Certificate of Mail on August 22, 2202 and received by the U.S. Patent and Trademark Office on August 29, 2002, and in response to the Notification of Non-Compliance dated February 25, 2003.

I. REAL PARTY IN INTEREST

The real party in interest in this Appeal is the assignee of the present application, Lexmark International, Inc.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to the Appellants, the Appellants' undersigned legal representative or the assignee which will directly effect or be directly effected by or having a bearing on the Board's decision in the present

appeal. While the assignee believes there are no other appeals which will directly effect or be directly effected by or have a bearing on the Board's decision, the following applications of the assignee relating to stand-alone printers are also under appeal: 09/610,129; 09/610,249; 09/610,081 and 09/609,891.

III. STATUS OF THE CLAIMS

Claims 1-20 are pending. Claims 1-20 stand rejected. A copy of the pending claims is set forth in the Appendix.

IV. STATUS OF AMENDMENTS FILED SUBSEQUENT TO FINAL REJECTION

No Amendments have been filed subsequent to the final rejection.

V. SUMMARY OF THE INVENTION

The claimed invention is directed to apparatus and methods for providing data management within a photoprinter (page 1, lines 2-4 of the specification).

Independent claim 1 is directed to a method of processing a digital photographic image on a photoprinter. The claimed method includes the steps of receiving a digital photographic image in a first format on a printer; performing one or more first operations on the digital photographic image in the first format; converting the digital photographic image to a second format; and performing one or more second operations on the digital photographic image in the second format (page 4, lines 5-10 of the specification).

Dependent claims 2-9 further define the methods of claim 1. In claim 2, the method further includes the steps of storing the digital photographic image while in the first format in an image-storage buffer; and storing the digital photographic image while at the second format in a print-band buffer (page 11, lines 17-18 and page 12,

lines 2-3 of the specification). In claim 3, the method also includes rendering the digital photographic image for output on the printer (page 10, lines 19-25 of the specification). As defined by claim 4, the first operations include one or more photographic image alterations (page 10, lines 6-12 of the specification). Claim 5 defines the second operations to include one or more text insertions onto the digital photographic image and one or more graphical insertions onto the digital photographic image (page 11, lines 1-6 of the specification). Claim 6 defines the first format as a camera resolution format (page 10, lines 2-4 of the specification). Claim 7 defines the second format as a printer resolution format (page 10, lines 19-25 of the specification). In claim 8, the method further includes selecting means for selectively performing a third operation on the digital photographic image in the first format (page 4, lines 5-10 of the specification). In claim 9, the method further includes selecting means for selectively performing a fourth operation on the digital photographic image in the second format (page 4, lines 8-10 of the specification).

As set forth in independent claim 10, the claimed photoprinter, which is capable of processing a digital photographic image at two resolutions, comprises a first memory in a first format; a second memory in a second format; and a controller. The controller performs one or more first operations on a digital photographic image in the first memory and one or more second operations on the digital photographic image in the second memory (page 4, lines 11-15 of the specification).

Claims 11-16 are each dependent upon claim 10 and further define the photoprinter. Claim 11 defines the photoprinter as further including a means for converting the digital photographic image in the first memory in the first format to the second format for storage in the second memory (page 10, lines 19-28 of the

specification). Claim 12 defines the photoprinter as further rendering the digital photographic image for output to a paper medium (page 12, lines 3-9 of the specification). Claim 13 defines the photoprinter as including rendering the digital photographic image for output to a computer-readable medium (page 12, lines 7-9 of the specification). As defined by claim 14, the first format is a native resolution format of the digital photographic image and the second format is a printer resolution format (page 10, lines 19-25 of the specification). As defined by claim 15, the first operations include one or more digital photographic image alterations (page 10, lines 6-12 of the specification). As defined by claim 16, the second operations include one or more text insertions and one or more graphical insertions onto the digital photographic image (page 11, lines 1-10 of the specification).

Independent claim 17 is directed to a method for providing data management on a photoprinter. The claimed method comprises receiving a digital photographic image in a first format on a printer; storing the digital photographic image in a first memory in the first format; performing one or more first operations on the digital photographic image in the first memory; converting the digital photographic image to a second format; transferring and storing the digital photographic image in the second format to a second memory; and performing one or more second operations on the digital photographic image in the second memory (page 4, lines 16-22 of the specification).

Dependent claims 18-20 further define the methods of claim 17. In claim 18, the method further includes rendering the digital photographic image for output (page 10, lines 19-25 of the specification). In claim 19, the first format is at a lower resolution format than the second format (page 10, lines 3-12 of the specification). In

4

claim 20, the first operations include digital photographic image alterations and the second operations include text and graphical insertions on the digital photographic image (page 10, lines 6-12 and page 11, lines 1-11 of the specification).

VI.   ISSUES ON APPEAL

The three issues presented on appeal for review by the Board, as follows:

A.   The rejection of claims 1, 3-5 and 7-20 under 35 U.S.C. §102(e) as being unpatentable over Itoh, U.S. Patent No. 6,034,785;

B.   The rejection of claim 2 under 35 U.S.C. §103 as being unpatentable over Itoh in view of Chang et al., U.S. Patent No. 4,965,748; and

C.   The rejection of claim 6 under 35 U.S.C. §103 as being unpatentable over Itoh in view of Levine, U.S. Patent No. 4,751,583.

VII.   GROUPING OF THE CLAIMS

A.   With respect to the above-noted issue A on appeal, Appellants concede that claims 3-5 and 7-20 stand or fall together with claim 1.

B.   With respect to the above-noted issue B on appeal, only claim 2 has been rejected.

C.   With respect to the above-noted issue C on appeal, only claim 6 has been rejected.

VIII.   ARGUMENTS

As will be set forth in detail below, the methods of processing a digital photographic image on a photoprinter, photoprinters and methods of providing data management on a photoprinter defined by claims 1-20 are not anticipated by, and are nonobvious over and patentably distinguishable from, Itoh, whether alone or in combination with Chang et al. or Levine. Accordingly, the rejection of claims 1-20

under 35 U.S.C. §§102 and 103 should be reversed. Favorable action by the Board is respectfully requested.

A. **The Claimed Photoprinter and Methods Are Not Anticipated By Itoh**

The photoprinters, methods of processing a digital photographic image on a photoprinter and methods of providing data management on a photoprinter as defined by claims 1, 3-5 and 7-20 are not anticipated by Itoh.

1. **The Invention**

, As set forth above, the present invention is directed to photoprinters, methods of providing data management on a photoprinter and methods of processing a digital photographic image on a photoprinter. For example, as defined by claim 1, the method of processing a digital photographic image on a photoprinter comprises receiving a digital photographic image in a first format on a printer; performing one or more first operations on the digital photographic image in the first format; converting the digital photographic image to a second format; and performing one or more second operations on the digital photographic image in the second format.

2. **The Rejection**

The Examiner asserted that Itoh teaches a method of processing a digital photographic image on a photoprinter comprising: receiving a digital photographic image in a first format on a printer; performing one or more first operations on the digital photographic image in the first format; converting the digital photographic image to a second format and performing one or more second operations on the digital photographic image in a second format.

3. The Claimed Methods and Photoprinters Are Not Anticipated By Itoh

The methods and photoprinters of claims 1, 3-5 and 7-20 are not anticipated by Itoh and the rejection of these claims under 35 U.S.C. §102 should be reversed. Among other deficiencies, Itoh fails to teach or disclose a printer that, independent of an external host device, is capable of performing a first operation on a digital photographic image in a first format and a second operation on the digital photographic image in a second format, as required by all the claims at issue.

As the Board is well aware, anticipation under 35 U.S.C. §102 requires the disclosure in a single prior art reference of each element of the claim under consideration, *Alco Standard Corp. v. TVA*, 1 U.S.P.Q.2d 1337, 1341 (Fed. Cir. 1986). As defined by independent claim 1, for example, the present invention comprises a method of processing a digital photographic image on a photoprinter. The method comprises the steps of receiving a digital photographic image in a first format on the printer; performing one or more first operations on the digital photographic image in the first format; converting the digital photographic image to a second format; and performing one or more second operations on the digital photographic image in the second format. Among other advantages, the method of claim 1 allows for reduced memory and processor utilization in a photoprinter, which cannot rely on a computer to perform, for example, digital photographic image enhancements.

As discussed more fully herein, Itoh has nothing to do with photoprinters, as that term is used in the claims of the present application. Accordingly, Itoh fails to

disclose each element of claim 1. Therefore, Itoh fails to anticipate claim 1 of the present application.

When the meaning of a term used in a claim is sufficiently clear from its definition in the patent specification, that meaning shall apply. *Intermatic Inc. v. Lamson & Sessions Co.*, 273 F.3d 1355, 1365 (Fed. Cir. 2001); *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1477 (Fed. Cir. 1998); *Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1388 (Fed. Cir. 1992). As defined by the present application, a "photoprinter" is a "stand-alone appliance for printing digital photographs onto a printable medium," wherein stand-alone is defined to be a printer that is capable of "processing and printing digital files independent of external host device[s], such as a computer" (see p. 3, lines 15-30 of the specification). Independent claims 1, 10 and 17 all require such a photoprinter.

Itoh discloses a method for creating digital composite image data (e.g., custom postcards) by synthesizing a background image (previously stored as digital image data) and an image read from an original and inserted into the background image. Itoh discloses this method in the context of a digital print system, wherein the digital print system consists of a configuration of multiple devices, including: an image input device, a controller, a printer, a display, a memory device, an input device, and a bonding machine, wherein the synthesis is performed on the controller. Appellants find no teaching or disclosure in Itoh of a photoprinter as defined by and in the present application.

In contrast to claim 1 of the present application, Itoh clearly teaches a print system 10 that includes a printer 16 that is controlled and managed by, and therefore dependent on, an external controller 14 (see col. 6, lines 4-39, col. 7, lines 54-56, and

8

Figs. 1 and 2). More particularly, Itoh discloses that printer 16 subjects a photosensitive material to image exposure based on a signal synthesized by controller 14. Thus, Itoh fails to teach or suggest a photoprinter, as defined by the present application (i.e., a printer that is capable of processing and printing digital files independent of an external host device, such as controller 14), let alone a printer that is capable of performing a first operation on a digital photographic image in a first format and a second operation on the digital photographic image in a second format.

In fact, Itoh teaches away from the inventions of claim 1. For example, the digital print system of Itoh requires a printer 16 that is dependent on controller 14. Moreover, Itoh teaches a system that relies on an external host computer (controller 14) to perform, for example, digital photographic image enhancements. Accordingly, Itoh fails to anticipate claim 1.

In the Advisory Action mailed on July 24, 2002, the Examiner asserted that Fig. 4 of the present application taught a "device controller" and "device printer" that form a "digital printer system." The Examiner further asserted that a controller is "a separate device and it would be programmed to be used with other systems and devices such as a camera, a car or mobile phone." Apparently based on these assertions, the Examiner concluded that the printer of the present invention "contains other devices" and, therefore, the separate devices shown in Figs. 1 and 2 of Itoh form a "printer." Appellants respectfully disagree with the assertions and apparent conclusions associated with this reasoning.

As defined in the present specification, Fig. 4 depicts a block diagram of a "photoprinter" that comprises a printer controller 700 and a printer mechanism 1300 (page 11, lines 12-13; page 12, lines 19-21). Printer controller 700 is described as

9

software logic **residing in** the photoprinter's volatile memory during operation and **residing in** the non-volatile memory when the photoprinter is powered down (page 11, lines 12-15 of the specification, emphasis added). As such, Fig. 4 merely depicts the internal components of a stand-alone appliance, not the separate multiple devices of a print system such as Itoh's.

In fact, in order to avoid confusion with such print systems, the present application carefully and clearly provided a definition of what the Appellants consider to be a photoprinter as that term is used in the claims. In particular, the specification defines a photoprinter to be a "stand-alone" appliance (page 5, lines 21-23), not a system of separate devices. Lest there be any doubt, the specification further defined the term stand-alone to mean capable of processing and printing digital files independent of an external host device (page 5, lines 26-27). Furthermore, the present application clearly defines that a photoprinter, as that term is used in its claims, is an alternative to a print system that includes such separate devices (see page 1, lines 15-21). Accordingly, a portrayal of one of the photoprinters of the present application as being a system of multiple separate devices is not supported.

Since Itoh does not disclose a printer that, independent of an external host device, is capable of performing a first operation on a digital photographic image in a first format and a second operation on the digital photographic image in a second format, Itoh does not disclose each element of claims 1, 3-5 and 7-20. Therefore, Itoh does not anticipate the photoprinters and methods defined by claims 1, 3-5 and 7-20.

Accordingly, the photoprinters and methods defined by claims 1, 3-5 and 7-20 are not anticipated by Itoh and the rejection of claims 1, 3-5 and 7-20 under 35 U.S.C. §102 should be reversed.

B.   **The Claimed Method is Nonobvious Over Itoh and Chang et al.**

The method of processing a digital photographic image on a photoprinter as defined by claim 2 is nonobvious over and patentably distinguishable from Itoh in view of Chang et al.

1.   **The Invention**

As set forth above, the invention of claim 1 is directed toward a method of processing a digital photographic image on a photoprinter. As defined by claim 2, which is dependent on claim 1, the method comprises receiving a digital photographic image in a first format on a printer; performing one or more first operations on the digital photographic image in the first format; converting the digital photographic image to a second format; and performing one or more second operations on the digital photographic image in the second format; storing the digital photographic image while in the first format in the image-storage buffer and storing the digital photographic image while at the second format in a print-band buffer.

2.   **The Rejection**

The Examiner noted that Itoh did not teach the use of a print-band buffer to store image data at a second format. The Examiner asserted that Chang et al. in the same area of storing image data to be printed by a printer teaches to store image data using a print-band buffer. The Examiner asserted it would have been obvious to a person of ordinary skill in the art to have modified Itoh by using a print-band buffer to store the image data at a second format.

3.   **The Claimed Method Is Nonobvious Over Itoh and Chang et al.**

No prima facie case of obviousness has been established with respect to claim 2 based on Itoh and Chang et al., whereby the rejection under 35 U.S.C. §103 should be reversed.

Claim 2 depends from independent claim 1. The deficiencies noted above of Itoh with respect to claim 1 are not overcome by Chang et al. Chang et al. discloses a laser printer controller having a frame buffer which allows the printer to buffer raster image information to be sent to the printer engine through a video interface. The frame buffer is known as a band buffer and allows the CPU to have sufficient time to process input data and fill the band buffer. Itoh and Chang et al., alone or in combination, fail to teach or suggest a photoprinter, i.e., a stand-alone appliance capable of processing and printing digital files independent of an external host device as required by independent claim 1. To establish prima facie obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art, *In re Royka*, 490 F.2d 981; 180 U.S.P.Q. 580 (CCPA 1974). References relied upon to support a rejection under 35 U.S.C. §103 must provide an enabling disclosure, i.e., they must place the claimed invention in the possession of the public. *In re Payne*, 203 U.S.P.Q. 245 (CCPA 1979). Appellants find no teaching or suggestion in Itoh or Chang et al. relating to a printer capable of processing and printing digital files independent of an external host device.

In view of the failure of Itoh and Chang et al. to teach or suggest a printer capable of processing and printing files independent of an external host device, Itoh and Chang et al. do not provide an enabling disclosure of the presently claimed method and do not place the method in the possession of the public. Thus, Itoh and Chang et al. do not support a rejection under 35 U.S.C. §103. It is therefore submitted

12

that the rejection of claim 3 should be reversed. Reconsideration is respectfully requested.

C. The Claimed Method Is Nonobvious Over Itoh In View of Levine

The method as defined by claim 6 is nonobvious over and patentably distinguishable from Itoh in view of Levine.

1. The Invention

As set forth above, the invention of claim 1 is directed to a method of processing a digital photographic image on a photoprinter. As defined by claim 6, which is dependent on claim 1, the method comprises receiving a digital photographic image in a first format on a printer; performing one or more first operations on the digital photographic image in the first format; converting the digital photographic image to a second format; and performing one or more second operations on the digital photographic image in the second format, wherein the first format is a camera resolution format.

2. The Rejection

The Examiner noted that Itoh did not teach that the resolution format is in a camera resolution format. The Examiner asserted that Levine teaches inputting an image from a camera, with a camera resolution format to be processed by a processor for printing. The Examiner asserted that it would have been obvious to have modified Itoh by replacing the scanner with a camera.

3. The Claimed Method Is Nonobvious Over Itoh In View of Levine

No prima facie case of obviousness has been established with respect to claim 6 based on Itoh in view of Levine, whereby the rejection under 35 U.S.C. §103 should be reversed.

Claim 6 depends from independent claim 1. As discussed above, the methods of processing a digital photographic image on a photoprinter according to claim 1 comprise receiving a digital photographic image in a first format on a printer; performing one or more first operations on the digital photographic image in the first format; converting the digital photographic image to a second format; and performing one or more second operations on the digital photographic image in the second format. The deficiencies of Itoh as noted above are not overcome by Levine.

Levine discloses a portable electronic still camera and image previewing and processing system, including a portable electronic camera 10 and a portable image previewer and image processor 12. Levine teaches that image processor and previewer 12 is preferably similar in configuration to laptop computers or data processors (see col. 3, lines 16-19). Accordingly, hereinafter, the image previewer and processor of Levine will be referred to as its "computer."

Levine discloses that its camera and its computer are provided as separate modular components that can be carried about in a briefcase and detachably interconnected together (see col. 2, lines 40-47). Moreover, Levine explains that its system can be advantageously used to allow for image processing in remote locations and to allow changes to be made on site (see col. 7, lines 10-38). Among other deficiencies, Appellants find no teaching or disclosure in Levine that resolves Itoh's failure to teach or suggest a printer that, independent of an external host device, is

capable of performing a first operation on a digital photographic image in a first format and a second operation on the digital photographic image in a second format.

To establish prima facie obviousness of the claimed invention, all of the claim limitations must be taught or suggested by the prior art, *In re Royka, supra.* In view of the failure of Itoh and Levine, alone or in combination, to teach, disclose or suggest a printer that, independent of an external host device, is capable of performing a first operation on a digital photographic image in a first format and a second operation on the digital photographic image in a second format, Itoh and Levine do not support a rejection under 35 U.S.C. §103.

Accordingly, the method defined by claim 6 is nonobvious over and patentably distinguishable from the combination of Itoh and Levine, and the rejection of claim 6 under 35 U.S.C. §103 should be reversed.

IX. **CONCLUSIONS**

For the reasons set forth in detail above, the methods of processing a digital photographic image on a photoprinter, photoprinters and methods of providing data management on a photoprinter as defined by claims 1-20 are not anticipated by, and are nonobvious over and patentably distinguishable from, Itoh, whether alone or in combination with Chang et al. or Levine. Accordingly, the rejections of claims 1-20 under 35 U.S.C. §§102 and 103 should be reversed. Favorable action by the Board is respectfully requested.

Respectfully submitted,
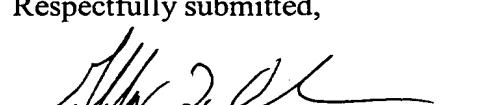
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APPENDIX

1.   A method of processing a digital photographic image on a photoprinter, comprising:

    receiving a digital photographic image in a first format on a printer;

    performing one or more first operations on the digital photographic image in the first format;

    converting the digital photographic image to a second format; and

    performing one or more second operations on the digital photographic image in the second format.

2.   The method of claim 1, further comprising:

    storing the digital photographic image while in the first format in a image-storage buffer; and

    storing the digital photographic image while at the second format in a print-band buffer.

3.   The method of claim 1, further comprising:

    rendering the digital photographic image for output on the printer.

4.   The method of claim 1, wherein the first operations include one or more photographic image alterations.

5.   The method of claim 1, wherein the second operations include:

17

one or more text insertions onto the digital photographic image; and

one or more graphical insertions onto the digital photographic image.

6.   The method of claim 1, wherein the first format is a camera resolution format.

7.   The method of claim 1, wherein the second format is a printer resolution format.

8.   The method of claim 1, further comprising:

selecting means for selectively performing a third operation on the digital photographic image in the first format.

9.   The method of claim 1, further comprising:

selecting means for selectively performing a fourth operation on the digital photographic image in the second format.

10.   A photoprinter capable of processing a digital photographic image at two resolutions, comprising:

a first memory in a first format;

a second memory in a second format; and

a controller wherein the controller performs one or more first operations on a digital photographic image in the first memory and one or more second operations on the digital photographic image in the second memory.

11. The photoprinter of claim 10, further comprising:

means for converting the digital photographic image in the first memory in the first format to the second format for storage in the second memory.

12. The photoprinter of claim 10, further comprising:

rendering the digital photographic image for output to a paper medium.

13. The photoprinter of claim 10, further comprising:

rendering the digital photographic image for output to a computer readable medium.

14. The photoprinter of claim 10, wherein the first format is a native resolution format of the digital photographic image and the second format is a printer resolution format.

15. The photoprinter of claim 10, wherein the first operations include one or more digital photographic image alterations.

16. The photoprinter of claim 10, wherein the second operations include one or more text insertions and one or more graphical insertions onto the digital photographic image.

17. A method of providing data management on a photoprinter comprising:

receiving a digital photographic image in a first format on a printer;

storing the digital photographic image in a first memory in the first format;

performing one or more first operations on the digital photographic image in the first memory;

converting the digital photographic image to a second format;

transferring and storing the digital photographic image in the second format to a second memory; and

performing one or more second operations on the digital photographic image in the second memory.

18.   The method of claim 17, further comprising:

rendering the digital photographic image for output.

19.   The method of claim 17, wherein the first format is at a lower resolution format than the second format.

20.   The method in claim 17, wherein the first operations include digital photographic image alterations and the second operations include text and graphical insertions on the digital photographic image.